

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A clock, with a mechanical, electrical or electronic motor, with analog and unambiguous 24 hour display, with at least one indicating element for the hours, ~~which is driven by an hour tube (18), characterised in that the clock comprising:~~

~~[- the]] at least one indicating element (5) for the hours being driven by an hour tube and running runs around a two-loop-closed-curve (7, 31), called a first conchoid; or Pascal snail, of which~~

wherein each point is touched exactly once in 24 hours by the indicating element (5), whereby the ~~said curve (7, 31)~~ first conchoid has an outer loop (8, 40) and an inner loop (9, 41) with a crossing point (42) of the inner loop and the outer loop; and two loops (8, 40; 9, 41),

~~[-]] guiding means are present to guide for guiding the at least one indicating element (5) along the first conchoid. said two-loop-curve (7, 31),~~
~~the angular position of the indicating element (5) with regard to the null points of time at 12 h and 24 h is that as in known clocks.~~

2. (Currently Amended) A clock according to Claim 1, characterised in that wherein [-] the guiding means by which the indicating element is guided along the said two-loop-curve (7, 31) ~~comprise the following elements, comprises:~~

~~[-] a groove, at least indirectly connected to the a dial (24), which is also wherein the groove is formed as a two-loop-closed-curve in the shape of a second conchoid; (10),~~

~~[-] a guiding element (12, 17), which can move for moving along in the said second conchoid, (10) and carries the guiding element carrying a guide pin; (21),~~

~~[-] an element (11, 14) firmly fixed to the an hour tube (18), which moves the element moving the guiding element (12, 17) in the second conchoid (10) at least indirectly[[,]]; and~~

~~—an wherein the indicating element (13), which is moved in a radial direction by the guide pin (21), and in the azimuthal direction by the element (11, 14) firmly fixed to the hour tube (18).~~

3. (Currently Amended) A clock according to Claim 2, ~~characterised in that wherein the indicating element comprises:~~ ~~a variable length hour hand (5) is present with an inner part (14) and an outer part (13), whereby, wherein the inner part (14) can be is joined to the element firmly joined to the hour tube; and (18),~~

~~[[[-]] an the outer part (13) of the hour hand (5) can be, wherein the outer part is slid in a radial direction relative to the inner part (14) and is moved by it the guide pin in an azimuthal direction, wherein[[[-]] the radial movement of the outer part (13) of the hour hand (5) is caused by the guide pin (21), which is at least indirectly in connection with the said outer part (13), the indicating element is the point of the outer part(13) of the hour hand (5).~~

4. (Currently Amended) A clock according to Claim 3, ~~characterised in that wherein the guiding element, which carries the guide pin (21), is a sickle shaped sliding element (12), which can move moving azimuthally with radial play in the groove formed second conchoid (10), whereby;~~

~~wherein an outer radius of curvature of the sickle shaped sliding element (12) is smaller than the a smallest radius of curvature of the an outer surface of the groove-shaped second conchoid (10), and wherein an the inner radius of curvature of the sickle shaped sliding element (12) is greater than the a greatest radius of curvature of the an inner surface of the groove-shaped second conchoid (10).~~

5. (Currently Amended) A clock according to Claim 3, ~~characterised in that~~ wherein:
[[-]] the guiding element, which carries the guide pin, (21) ~~is a guiding element (17) with~~
includes at least three wheels (26, 27, 28) with parallel axles perpendicular to the ~~a~~ plane of the
dial; (24),

the guiding element includes with two arms (29), ~~further and~~ a carrying member (25) ~~is~~
present, in which the at least three said wheels (26, 27, 28) are mounted; ~~whereby~~
each of the two arms (29) carries one of the at least three wheels ~~wheel~~ (26, 28), and the
~~a third of the at least three wheels~~ ~~wheel~~ (27) is mounted between ~~the a first and second of the at~~
least three ~~two~~ wheels (26, 28) in the carrying member; (25),

[[-]] the at least three wheels (26, 27, 28) are arranged behind one another in the direction
of the track of the second conchoid (10), so that the first and the second ~~wheels~~ ~~third wheel~~ (26,
28) ~~can~~ touch the inner surface of the second conchoid (10) and the centre third wheel (27)
touches the outer surface of the second conchoid; (10);

[[-]] the at least three wheels ~~aforesaid~~ are further arranged so that, ~~both~~ at ~~the a~~ position
in the second conchoid (10) with the greatest radius of curvature [,] and ~~also in that a position in~~
the second conchoid with the smallest radius of curvature, sufficient radial play is available so as
to facilitate ~~easy azimuthal~~ azimuthal movement of the guiding element; ~~and~~ (17);

[[-]] the guide pin (21) is arranged in ~~the a~~ region of the centre third wheel (27).

6. (Currently Amended) A clock according to Claim 5, ~~characterised in that of~~ wherein at
least one of the two arms (29) between the centre third wheel (27) and the outer first and second
wheels (26, 28) ~~at least one~~ is produced as a flexing spring (30) working in a radial direction.

7. (Currently Amended) A clock according to Claim 1, ~~characterised in that~~ wherein the ~~guiding~~ means ~~for guiding the indicating element on the said two-loop curve (7, 31), comprise~~ comprises a plurality of gear wheels and a plurality of the arms ~~necessary to carry them~~ the plurality of gear wheels.

8. (Currently Amended) A clock according to Claim 7, ~~characterised in that~~ wherein [[-]] the ~~guiding~~ means ~~for guiding the indicating element on the said two-loop curve (7, 31), comprise the following elements, comprises:~~

[[-]] a first gear wheel (A), with radius $r(A)$, ~~which~~ is arranged concentrically with the hour tube (18) with radius $r(18)$ and the first gear wheel is firmly connected at least indirectly to the dial; (24),

[[-]] a first arm (32) firmly connected to the hour tube (18) and extending outwards, wherein in ~~which~~ a first axle (36) of a second gear wheel (B) with radius $r(B)$ is rotatably mounted to the first arm; [[,]]

[[-]] the second gear wheel (B) lies in the same plane as the first gear wheel (A) and meshes with the first gear wheel; it,

[[-]] a third gear wheel (C) with radius $r(C)$ is ~~present~~ and arranged concentrically with the second gear wheel (B) and is ~~firmly~~ connected to the first arm (32), wherein a second arm (34) is ~~present~~ and similarly fastened to the second gear wheel (B) on the same axle; [[,]]

[[-]] a fourth gear wheel with radius $r(D1)$ is ~~present~~, which lies the fourth gear wheel lying in the same plane as the third gear wheel (C) and the third gear wheel meshes with the fourth gear wheel it,

[-] the fourth gear wheel (D1) is fastened on ~~an~~ a second axle (33) running parallel to the first axle (36), ~~which~~ wherein the fourth gear wheel is mounted rotatably in the second arm; (34),

[-] the second arm (34) carries ~~an~~ a third axle (35) at a distance d(E) from the first axle (36), ~~to which it~~ wherein the second arm is fastened to the third axle and the third axle runs, running parallel to the first axle; it,

[-] a fifth gear wheel (E) ~~is present, which can rotate rotatable~~ about the last-named third axle (35) and at a distance d(F) from ~~this carries~~ the third axle the guide pin (21) is arranged parallel to the third axle; it,

[-] a sixth gear wheel (D2) with radius r(D2) ~~is present, which is~~ arranged in the same plane as the fifth gear wheel (E) and the fifth gear wheel meshes with the sixth gear wheel, wherein it, whereby the sixth gear wheel (D2) is fastened on the same second axle (33) as the ~~fourth gear wheel (D1)~~, and the sixth gear wheel is coaxial with fourth gear wheel; and it,

[-] the following relationships apply for the radii r(A), r(B), r(c), r(D1), r(D2):

$$r(B) = 2r(A)$$

$$r(C) = 2r(D1)$$

$$r(E) = r(D2).$$

9. (Currently Amended) A clock according to Claim 8, ~~characterised in that~~ wherein:

[-] the crossing point (42) ~~of the two loops (40, 41)~~ of the two loop curve (31) has a distance d(31) from ~~the centre~~ a center of the hour tube (18) ~~whereby~~ wherein

$$r(A) + r(B) = d(31)$$

applies[.,.];

[-] the a greatest radial distance of each of the inner loop and outer loop two loops (40, 41) of the two loop curve (31) amounts to $d(40)$ or $d(41)$ and is connected to the distances $d(E)$ and $d(F)$ in accordance with the following equations:

$$d(E) = d(F)$$

$$d(40) - d(41) = 4d(E)[,]; \text{ and}$$

[-] the hour tube (18) has an outer radius $r(18)$, which together with $r(A)$, $r(B)$, and $r(C)$ define the limitation that:

$$r(C) < r(A) + r(B) - r(18).$$

10. (Currently Amended) A clock according to Claim 3 ~~and Claim 7, characterised in that~~ wherein:

[-] the element firmly joined to the hour tube (18) is a disc (11) arranged concentrically to the element; it,

[-] a variable length hour hand (5) is present with the indicating element includes an inner part (14) and an outer part (13), whereby wherein the inner part (14) can be is joined to the disc (11);

[-] the outer part (13) of the hour hand (5) can slide indicating element slides in relation to the inner part (14) in a radial direction[,];

[-] the radial movement of the outer part (13) of the hour hand (5) indicating element is caused by the guide pin (21), which wherein the guide pin is in engagement, at least indirectly, with the said outer part (13);

[-] the indicating element is the point of the outer part; and (13) of the hour hand (5);

[-] the disc (11) is designed such that it can cover the the disc covers components for the guidance of the indicating element (5) lying beneath it.

11. (Currently Amended) A clock according to Claim 10, ~~characterised in that~~ wherein the disc (11) has a radially running slit for the guide pin (21).

12. (Currently Amended) A clock according to Claim 9, ~~characterised in that~~ wherein:
[[-]] the indicating element at the position of the guide pin (21) is a marking applied to the gear wheel (E)[[,]]; and
[[-]] the ~~two-loop curve (31), which describes the track of the guid pin (21) second~~ conchoid is as large as the two-loop closed curve (7) first conchoid of the track of the indicating element.